

1957

UNIVERSITY  
DEVELOPMENT  
S. NO. 29582  
LIBRARY

T4<sup>s</sup>N52-6t  
57

TRAVANCORE-COCHIN

LEGISLATURE LIBRARY

Section: T.2 T4 152-15

Title: Community Development

Stock No. 29532

Shelf No.

29532

(114) ?



UNIVERSITY GRANTS COMMITTEE

# UNIVERSITY DEVELOPMENT

INTERIM REPORT ON THE YEARS  
1952 TO 1956

29532

*Presented by the Chancellor of the Exchequer to Parliament  
by Command of Her Majesty  
March 1957*

LONDON  
HER MAJESTY'S STATIONERY OFFICE  
PRICE 1s. 3d. NET

Cmnd. 79

## UNIVERSITY GRANTS COMMITTEE

SIR KEITH MURRAY, B.SC., PH.D., M.A., B.Litt. (*Chairman*)

PROFESSOR W. M. ARNOTT, T.D., B.SC., M.D., F.R.C.P.

PROFESSOR J. F. BAKER, O.B.E., M.A., D.SC., SC.D., F.R.S.

SIR GEORGE CLARK, LL.D., D.Litt., F.B.A. •

PROFESSOR R. S. EDWARDS, B.COM.

J. C. GRIDLEY, ESQ., C.B.E.

THE RT. HON. LORD HEYWORTH, LL.D.

DR. WILLIS JACKSON, F.R.S.

SIR ERIC JAMES, M.A., D.Phil.

PROFESSOR R. H. MATTHEW, C.B.E., M.A., A.R.I.B.A.

PROFESSOR P. B. MEDAWAR, M.A., D.SC., F.R.S.

PROFESSOR W. R. NIBLETT, B.Litt.

PROFESSOR A. ROBERTSON, M.A., PH.D., B.SC., F.R.S.

E. L. RUSSELL, ESQ., C.B.E., M.A.

MRS. M. D. STOCKS, LL.D., B.SC.

SIR GEORGE THOMSON, LL.D., D.SC., F.R.S.

PROFESSOR T. E. WRIGHT, M.A.

SIR EDWARD HALE, K.B.E., C.B. (*Secretary*)

## CONTENTS

|   | PARAGRAPH |
|---|-----------|
| INTRODUCTION . . . . .  | 1         |
| DISTRIBUTION AND NUMBERS OF STUDENTS  | 5         |
| ACADEMIC STAFF. . . . .   | 18        |
| TECHNOLOGICAL DEVELOPMENT . . . . .   | 22        |
| NON-RECURRENT GRANTS . . . . .  | 28        |
| INCOME AND EXPENDITURE . . . . .  | 41        |
| <br>APPENDICES <span style="float: right;">PAGE</span>  |           |
| I Student Numbers . . . . .   | 22        |
| II Numbers of graduating and first diploma full-time students<br>entering for the first time in the first terms of the sessions | 23        |
| III Halls of Residence Sub-Committee . . . . .  | 24        |
| IV Allocation of Recurrent Grant provision for<br>Quinquennium 1952-57 . . . . .  | 24        |
| V Major projects approved for starts during the years<br>1952-56 . . . . .  | 25        |

TRAVANCORE-COCHIN

LEGISLATURE LIBRARY

Section : T T4 W52-67 75

Title : University Development 1952  
56

Stock No. 29532

Shelf No.

29532  
26/11/56

## UNIVERSITY DEVELOPMENT 1952-56

### TO THE LORDS COMMISSIONERS OF HER MAJESTY'S TREASURY

May it please Your Lordships:

1. We have the honour to present the following notes on the development of university affairs during the first four years of the quinquennium which began on 1st August, 1952. These notes are designed to supply a factual record of the main developments which have occurred in the universities during the last four years and of the use which they have made of their financial resources during that period. It is hoped that such a record may be of assistance in considering the provision which Parliament should be asked to make for the five years which will begin on 1st August, 1957. It is not intended to supersede the full review of the quinquennium which we hope to issue in due course and in which we propose, in accordance with past practice, to include a discussion of some of the main general problems which are engaging the attention of the universities. The present memorandum is therefore to be regarded as an interim Report only and as introductory to the fuller review which will follow.

2. The quinquennium which has been drawing to a close has been one in which the universities have been under pressure from two conflicting factors. The first of these was the continued decline in the value of money. No allowance was made in the grants announced in February, 1952, for the continuance of this decline after the end of the quinquennium 1947-52. To some extent the pressure from this cause was relieved by the supplementary recurrent grants made available in 1954-55 to enable universities to increase the salaries of their academic staffs, but no provision has been made to meet other increases in prices and wages, with the result that much of the development which it had been hoped to achieve with the grants announced in 1952 was not in fact possible. The second factor was the need for an increased output of technologists, to meet which we were enabled to recommend supplementary grants to a number of universities.

3. Largely as a result of the problems arising from these factors, the volume of business with which we were called upon to deal has remained at a high level throughout the whole of the period covered by this report. During the period from the beginning of the quinquennium to the present time, there have been 38 meetings of the main Committee and 34 meetings of Sub-Committees. In addition we have carried out, between January, 1955, and June, 1956, a general visitation of the universities and colleges on our grant list. The number of institutions visited by the Committee or one of its Sub-Committees was 99, and these visits occupied 101 days. Other visits have been made as occasion required. In addition we visited in 1954 certain technological institutions in other European countries.

4. At the beginning of the present quinquennium our grant list consisted of seventeen universities, five independent university colleges and two colleges of technology. Of the five university colleges, three (Southampton, Hull and Exeter) have since received charters enabling them to award degrees as universities, so that there are now twenty universities and only two independent university colleges, of which one (Leicester) is now applying for a Royal Charter as a university. Other notable events affecting individual institutions during the past quinquennium have included the reorganisation of the University of St. Andrews in accordance with the recommendations of the



Royal Commission which reported in 1952; the incorporation by Royal Charter of the Manchester College of Science and Technology, which thus ceases to be subordinate to the Corporation of Manchester and becomes an autonomous institution; the agreement reached between the University of Glasgow and the Royal College of Science and Technology, Glasgow, for certain modifications in the affiliation arrangements between the two institutions; and the celebration of their jubilees by three of the English Universities founded in the early years of the present century, Liverpool (1903), Leeds (1904) and Sheffield (1905).

## DISTRIBUTION AND NUMBERS OF STUDENTS

5. Appendix I shows for each university and College on our grant list the total number of full-time students enrolled in the academic years 1938-39, 1951-52 (the year immediately preceding the present quinquennium) and 1955-56. It also gives the number of such students for the first terms of the 1955-56 and 1956-57 sessions. Appendix II gives the number of graduating and first diploma full-time students entering for the first time in the first terms of the sessions.

6. The widely varying size of the institutions will be noticed. Omitting the University of London, with 19,403 full-time students, and the Universities of Oxford and Cambridge, each with between 7,740 and 8,295 respectively, and counting separately the Divisions of Durham University (2) and the constituent Colleges of the University of Wales (5), the institutions on our grant list fall by size into the following groups\*.

TABLE I

*Distribution of Institutions by size*

| <i>Full-time Student<br/>Numbers</i> | <i>Numbers of<br/>Institutions</i> |
|--------------------------------------|------------------------------------|
| Under 500 ... ..                     | 1                                  |
| 500- 999 ... ..                      | 4                                  |
| 1,000-1,499 ... ..                   | 8                                  |
| 1,500-1,999 ... ..                   | 2                                  |
| 2,000-2,999 ... ..                   | 4                                  |
| 3,000-3,999 ... ..                   | 4                                  |
| 4,000-4,999 ... ..                   | 3                                  |

7. Outstanding features of the present quinquennium have been, first, the relatively small decline in student numbers caused by the running out of the scheme for the Further Education and Training of those who undertook National Service during the war, and second, the growth in student numbers which set in after the effects of the termination of the Further Education and Training Scheme had worked themselves out. After the 1914-18 war numbers rose under the pressure of the ex-service demand to 48,452 in 1920-21 and fell, after that demand had worked itself out, to 41,606 in 1925-26. This was a decline of over 14 per cent. After the 1939-45 war

\* The Manchester College of Science and Technology and the Royal College of Science and Technology have been grouped according to the numbers of full-time university students (940 and 1,469 respectively), but the numbers of part-time students and students doing non-university work at these institutions is exceptionally large and if taken into account would take them into much higher groups.

the peak reached under the pressure of ex-service demand was 85,421 in 1949-50, and the lowest point reached after that demand had worked itself out was 80,602 in 1953-54, a decline of only 5½ per cent. Since then there has been a progressive increase to 88,701 in October, 1956. The number of full-time students in university institutions holding awards under the Further Education and Training Scheme was 25,967 in 1949-50 and had fallen to 1,769 in 1953-54. Thus a decline of just under 5,000 in student population between 1949-50 and 1953-54 was the net effect of a decline of about 24,000 in ex-service personnel holding awards under this scheme, and an increase of over 19,000 in students of other classes. The main reason both for the relatively small effect on student numbers of the falling away of the ex-service demand, and also for the subsequent increase in numbers, is that the number of pupils remaining at school to the age of 17 and over is nearly twice as great as before the war; and the ending of the Further Education and Training Scheme has been largely made good by the great increase in the number of other university awards from public funds. The proportion of each age group which remains at school to age 17 and over has been increasing for some years. It is now 7·9 per cent in England and Wales (January, 1955) and 9·1 per cent in Scotland. This development is tending to increase the numbers of pupils who qualify for admission to universities. In England and Wales the entrance requirements normally include two or three passes at the advanced level in the General Certificate of Education, and any significant increase in the number of such passes awarded from year to year may be regarded as an indication that the numbers qualified for admission to universities are also increasing. The number of advanced passes in all subjects increased in each of the five years 1951 to 1955, and much the largest increase was that in the last year of the period. The total increase over the period has been 27 per cent. Precisely comparable figures for Scotland are not available but the number of pupils who reached in the Scottish Leaving Certificate examination a standard roughly equivalent to that required for entry to the universities increased during the four years to 1955 by 24 per cent.

8. The effect of these trends on the numbers of full-time students entering universities for the first time may be seen from the following table giving the numbers entering at the beginning of the present and each of the three preceding sessions.

TABLE II  
*Full-time students entering university institutions for the first time.*

|                           | 1953-4 | 1954-5 | October 1955 | October 1956 |
|---------------------------|--------|--------|--------------|--------------|
| Arts ... ..               | 9,937  | 10,354 | 10,813       | 11,461       |
| Pure Science ... ..       | 4,538  | 4,880  | 5,289        | 5,888        |
| Medicine ... ..           | 2,614  | 2,674  | 2,700        | 2,441        |
| Dentistry ... ..          | 477    | 543    | 652          | 692          |
| Technology ... ..         | 2,796  | 3,199  | 3,374        | 3,842        |
| Agriculture ... ..        | 570    | 575    | 540          | 562          |
| Veterinary Science ... .. | 221    | 238    | 229          | 227          |
| TOTAL ... ..              | 21,153 | 22,463 | 23,597       | 25,113       |

9. The distribution of full-time students between faculties is shown in the following table giving the numbers for 1938-39, the last year before the war,

1949-50, the immediate post-war peak, 1953-54, the year in which numbers fell to their lowest point since the war, and October, 1956:—

TABLE III  
*Numbers of full-time students by faculties*

|                                | 1938-39 |           | 1949-50 |           | 1953-54 |           | Autumn Term 1956 |           |
|--------------------------------|---------|-----------|---------|-----------|---------|-----------|------------------|-----------|
|                                | Number  | Per cent. | Number  | Per cent. | Number  | Per cent. | Number           | Per cent. |
| Arts ... ..                    | 22,374  | 44·7      | 37,243  | 43·6      | 34,673  | 43·0      | 38,100           | 42·9      |
| Pure Science ... ..            | 7,661   | 15·3      | 16,917  | 19·8      | 16,971  | 21·1      | 19,447           | 21·9      |
| Medicine ... ..                | 11,883  | 23·8      | 14,147  | 16·6      | 13,239  | 16·4      | 13,035           | 14·7      |
| Dentistry ... ..               | 1,488   | 3·0       | 2,724   | 3·2       | 2,564   | 3·2       | 2,726            | 3·1       |
| Technology ... ..              | 5,288   | 10·6      | 10,933  | 12·8      | 10,036  | 12·4      | 12,365           | 13·9      |
| Agriculture and Forestry... .. | 1,043   | 2·1       | 2,773   | 3·2       | 2,066   | 2·6       | 1,912            | 2·2       |
| Veterinary Science             | 265     | 0·5       | 684     | 0·8       | 1,053   | 1·3       | 1,116            | 1·3       |
| TOTAL ... ..                   | 50,002  | 100·0     | 85,421  | 100·0     | 80,602  | 100·0     | 88,701           | 100·0     |

10. It will be seen that the trends which were in evidence five years ago have continued, science and technology gaining at the expense of arts and medicine. We said in our last report (on the years 1947-52, Cmd. 8875) that the demand for technological courses was less keen than that for pure science. The position in this respect has changed somewhat, the numbers of technological students having recently shown the greater buoyancy. The reduced demand for entry to the Medical Schools is caused by a number of factors, one of which is probably the continued increase in the numbers on the Medical Register. The question what intake into the Medical Schools will be required in future is now under examination by a Committee under the chairmanship of the Rt. Hon. Henry Willink, M.C., Q.C. The intake of dental students, though disappointing, has shown some improvement in the last two years. The reasons for the lack of applicants for dental training have been the subject of a very recent report by a Committee under the chairmanship of Lord McNair.

11. In our last report we said that in general the proportion of outstandingly good and outstandingly weak students was lower, and of good second-class students was higher, than it was before the war. This remains the general position. We reported that an inquiry into the progress by the end of their first year of students who entered universities in 1950 disclosed a casualty rate of between 8 and 9 per cent. A somewhat fuller inquiry has since been undertaken into the progress of students who were admitted for the first time in the academic year 1953-54 to courses for first degrees and diplomas, and who, in October, 1954, were either readmitted or refused readmission on account of academic failure or for disciplinary reasons. Those whose failure to return in October, 1954, was due to other reasons were not included in the inquiry, and for this reason its results are not fully comparable with those of the earlier inquiry. The total number of students covered by the return was 19,286 out of a total entry in October, 1953, of 21,235. Of the students covered by the return, 87·4 per cent re-entered in October, 1954, and proceeded to the work of the second year without being required to repeat any first year work; 5·9 per cent re-entered in October, 1954, but were required to repeat the first year course in whole or in part; 2·5 per cent re-entered in October, 1954, but were transferred to another course; and only 4·2 per cent did not re-enter in October, 1954, owing to being refused readmission on account of academic failure or for disciplinary reasons.

12. The proportion of full-time advanced (in general post-graduate) students has continued to increase. In 1955-56 they numbered 12,668, as compared with 11,544 in 1951-52. In order to obtain a comparison with the pre-war position, students of education—of whom the great majority are taking one-year post-graduate courses to qualify them as teachers—must be omitted. With this omission the number in 1955-56 was 9,159 or 10·8 per cent of the total full-time student body, compared with 8,162 (9·8 per cent) in 1951-52 and 3,030 (6·1 per cent) in 1938-39. Postgraduate work looms larger in science than in arts, and in pure science than in technology. In 1955-56 the proportion of higher degrees to first degrees in arts was 12·2 per cent, in pure science, 25·6 per cent, and in technology, 20·6 per cent.

13. In 1955-56, 9,286 full-time students (10·9 per cent) came from homes outside the United Kingdom, compared with 6,960 (8·3 per cent) in 1951-52 and 5,213 (10·4 per cent) in 1938-39. Of these the proportion who came from within the British Commonwealth was about 60 per cent, a slightly higher proportion than before the war. These figures relate to students engaged on courses of a year's duration or longer. In addition courses of less than a year's duration attract many students from overseas, particularly in medicine. The British Postgraduate Medical Federation (University of London) had in 1955-56, in addition to their full-time students (575), a further 2,920 students, of whom 1,775 came from overseas, who were taking courses of less than a year.

14. The following table shows the changes which have taken place in the proportions of full-time students who live in Colleges or Halls of Residence, in lodgings or at home during the university term:—

TABLE IV  
*Residence of Full-time Students during Term in certain years*

|                                    | 1938-39 |            | 1951-52 |            | 1955-56 |            |
|------------------------------------|---------|------------|---------|------------|---------|------------|
|                                    | Number  | Percentage | Number  | Percentage | Number  | Percentage |
| Colleges or Halls of Residence ... | 12,555  | 25·1       | 21,625  | 25·9       | 23,415  | 27·5       |
| Lodgings ...                       | 16,600  | 33·2       | 33,005  | 39·6       | 38,072  | 44·7       |
| At home ...                        | 20,847  | 41·7       | 28,828  | 34·5       | 23,707  | 27·8       |
| TOTAL ...                          | 50,002  | 100·0      | 83,458  | 100·0      | 85,194  | 100·0      |

15. The proportions of students living in colleges or halls of residence, in lodgings or at home vary widely between institutions. This is shown in the following table:—

TABLE V  
*Residence of full-time students in term in 1955-56*

|   | Proportion of full-time students living in |            |            |
|---|--|------------|------------|
|   | Colleges or Halls of Residence             | Lodgings   | At home    |
|   | Percentage                                 | Percentage | Percentage |
| Cambridge and Oxford ...                    | 52·4                                       | 46·4       | 1·2        |
| London ...                                  | 18·4                                       | 46·5       | 35·1       |
| Other institutions in England and Wales ... | 27·7                                       | 47·3       | 25·0       |
| Scotland ...                                | 12·5                                       | 34·2       | 53·3       |

The last two groups conceal very wide variations. Thus, practically all the students at the University College of North Staffordshire reside in the College; very few at the Manchester College of Science and Technology live otherwise than in lodgings or at home. At the Durham Colleges three quarters of the students are in residence; at King's College Newcastle only 9 per cent. There are other examples of striking variations in this respect in England and Wales. In Scotland the University of St. Andrews stands out with 43 per cent in residence.

16. In our last report we said that it was one of the outstanding disappointments of the quinquennium 1947-52 that so little had been possible to increase the proportion of students enjoying the benefits of residence, and the improvement since 1951-52 is much less than we would have wished and would have achieved had more capital been available. We hope that as the position in this respect improves, we shall be able to devote more of our resources to the provision of residence. In the meantime we have appointed a sub-committee, the composition of which is shown in Appendix III, with the following terms of reference:—

“To consider and report on the nature and importance of the role which should be played by halls of residence in the education of university students, and its relationship to that of other forms of student organisation; the manner in which halls of residence should be administered and staffed in order to carry out this role; and the arrangements within universities for formulating policy on these matters and for supervising its execution”.

Through the generosity of the Rockefeller Foundation, to which we are greatly indebted, the Chairman of this Sub-Committee (Professor W. R. Niblett) has been enabled to visit the United States of America to study the conditions under which students live in the universities of that country. The Sub-Committee's report should be available shortly; we propose to publish it.

17. The decline in the proportion of full-time students who live at home during the term, which we welcomed in our last report, has continued. This, it will be seen, has been due more to an increase in the number living in lodgings than to the increase in the number in residence in Colleges or Halls. We understand, however, that in many universities satisfactory lodgings are becoming increasingly difficult to obtain. Growing prosperity and full employment have made householders less inclined to let lodgings, and there is a rising demand for lodgings, particularly in cities where industry is expanding, from men and women able to pay more for them than the university student. The further expansion of the universities may be dependent in many places on the provision of further facilities for residence.

## ACADEMIC STAFF

18. In our last report we welcomed the improvement in the staff-student ratio which had taken place since before the war, and we are glad to be able to report that with the increased income which has been available in the present quinquennium a further improvement has taken place. The numbers of the main grades of staff have increased as follows:—

TABLE VI

*Full-time Academic Staffs employed in Teaching Departments*

|  | 1938-39 | 1951-52 | 1955-56 |
|--|---------|---------|---------|
| Professors ... ..  | 889     | 1,290   | 1,421   |
| Readers, Assistant Professors and Independent Lecturers ... .. | 369     | 640     | 735     |
| Senior Lecturers ... ..  | } 1,543 | 797     | 1,035   |
| Lecturers ... ..   |         | 3,684   | 4,743   |
| Assistant Lecturers and Demonstrators ... ..                   | 856     | 1,537   | 1,200   |
| Others ... ..  | 337     | 1,004   | 1,068   |
|  | 3,994   | 8,952   | 10,202  |

*Note.*—The figures in this table do not include staff of the rank of Senior Lecturer or below at Oxford and Cambridge.

19. As a result of this increase in numbers the overall staff-student ratio has increased from 1 : 8 in 1951-52 to 1 : 7 in 1955-56. This further improvement is to be welcomed; it will, however, be appreciated that these ratios are averages covering very wide variations between one subject and another, and that in so far as additional appointments are due to the growing needs of research and the increased specialisation necessarily involved by the growth of knowledge, the beneficial effect on undergraduate teaching is less than might appear.

20. When we last reported the academic salaries in force were those introduced in 1949. The continued fall in the value of money and improvements in remuneration in other professions and occupations made it necessary to carry out a further review in 1954 in order to enable the universities to maintain their standards of recruitment. The new rates introduced in 1954 are compared with those previously in force in the following table:—

TABLE VII

*Rates of Academic Salary*

|                                  | 1949             | 1954             |
|----------------------------------|------------------|------------------|
| <i>Clinical Posts</i>            |                  |                  |
| Professors—Salaries ranging from | £2,250 to £2,750 | £2,500 to £2,850 |
| Readers and Lecturers — Scales   |                  |                  |
| rising from ... ..               | £600             | £700             |
| to maxima ranging from ...       | £1,500 to £2,200 | £1,750 to £2,400 |
| <i>Pre-clinical Posts</i>        |                  |                  |
| Professors—Salaries ranging from | £2,000 to £2,500 | £2,250 to £2,850 |
| Readers and Lecturers — Scales   |                  |                  |
| rising from ... ..               | £600             | £700             |
| to maxima ranging from ...       | £1,200 to £1,800 | £1,450 to £2,050 |

TABLE VII—*contd.*  
*Rates of Academic Salary—contd.*

| <i>Non-medical Posts</i>  | 1949           | 1954           |
|---|----------------|----------------|
| Professors—Grants were related to basic salaries of ... ..                        | £1,600         | £1,900         |
| with provision for supplementation allowing for a range of salaries up to ... ..  | £2,500         | £2,850         |
| Readers and Senior Lecturers—A range of salaries with varying maxima up to ... .. | £1,600         | £1,850         |
| Lecturers—Scales rising generally from ... ..                                     | £500 to £1,100 | £650 to £1,350 |
| Assistant Lecturers — Salaries ranging from ... ..                                | £400 to £500   | £550 to £650   |

An additional allowance of £50 continued to be paid to non-medical members of staffs in London University below the rank of Professor. The additional recurrent grant made available to finance the introduction of the 1954 rates of salary made it possible to give immediate increases of salary averaging about 17 per cent.

21. In our last report we said that we had invited the universities to consider proposals for an improvement in the superannuation arrangements for academic staff. The existing arrangements are contributory and the amount of the annuity which a member of staff can obtain on retirement is related to the amount which he has earned over the whole of his career. Such arrangements presuppose stability of money values, and hardship may result under other conditions. After consultation with the universities a scheme was devised, and approved by the Treasury and Inland Revenue Department, under which a supplementary pension can be given where the best single annuity purchasable with the proceeds of the policies held on behalf of the retiring member of staff is less than an "appropriate rate". The amount of the supplementary pension is the amount by which the best single annuity is less than the "appropriate rate". The amount of the "appropriate rate" in any case depends partly on the position held on retirement and partly on the length of university service. The maxima for 40 years' service are £1,000 for a Professor, £850 for an Assistant Professor, Reader or Senior Lecturer, and £700 for a Lecturer. These arrangements apply to those who on or after 1st August, 1953, retired at age 60 or over from full-time service with a university in Great Britain.

## TECHNOLOGICAL DEVELOPMENT

22. In announcing the provision to be made for recurrent grant for the 1952-57 quinquennium, the Chancellor of the Exchequer (the Rt. Hon. R. A. Butler, M.P.) said that in making some provision for development, he had in mind particularly the need for scientific and technological progress. Nevertheless the Government shortly decided that technological education needed a further stimulus, and on 10th June, 1952, we were invited to advise how best rapidly to build up at least one institution of university rank devoted predominantly to the teaching and study of the various forms of technology.

23. It would have been open to us on this reference to recommend the creation of a new "technological university", and there was a certain body of opinion which would have favoured this course. Such a proposition raised two questions, first, whether it would be preferable to create a new institution or to build up an existing one; secondly, whether technological education at the highest level should be given in an institution limited to technology or in a university in which a wide range of subjects is studied.

24. On the first issue we had no hesitation, at a time when development was a matter of urgency, in preferring to build up an existing organisation. The staff required to plan and launch a new institution of this type would have had to be of the highest calibre, and their withdrawal from existing institutions would have affected their current output of scientists and technologists without creating any immediate compensating supply. The planning and creation of a new institution of this type would take a long time, and it would have been a number of years before the first graduates were forthcoming. Many more years must have elapsed before it could have reached its full stature, however liberally it had been financed. An institution is not great by having fine buildings and lavish equipment. Its greatness is derived from the quality and spirit of those who work there, and men of the quality desired will only be attracted to an institution of outstanding reputation. Reputation is a slow growth which cannot be forced. The reputation of institutions abroad, which has led to the desire for similar institutions here, has been the fruit of many years of achievement.

25. As regards the second issue, we should regard the isolation of an institution confined to a narrow range of subject as unfavourable to the highest attainment. This is the view which has been taken by a number of Committees which have been appointed by Government in recent years to consider the organisation of higher education in other forms of applied science. As a result the recommendations of these Committees extra-mural schools of medicine, dentistry, agriculture and veterinary science have been brought within existing universities. If these recommendations are right for the application of science to the practical problems of healing sickness and growing food, there is no reason why they should not be of equal validity for its application to the practical problems of industry. We considered, on evidence both from at home and overseas, that it was desirable, and indeed imperative, to keep applied science in the closest possible touch with the pure sciences, and we also attached importance to contact with the humanities, many of whose disciplines are becoming increasingly recognised as a necessary part of the education of the technologist.

26. It has been argued by some that the universities are already overloaded with applied science, and that it would be of advantage to remove the industrial applications of science to other, specialised, institutions. On the other hand, students of technology represent only 13 per cent of all full-time university students, and the response of most universities to the Committee's invitation to develop technology further showed conclusively that they were ready and willing to raise this proportion. Admittedly the ever-growing content of knowledge creates formidable problems of university organisation, which the inclusion of technological subjects in the scope of a university must tend to make more difficult. But we believe that there is an overriding need for institutions where both teacher and student can maintain touch with the whole range of knowledge, and where the implications in other sectors of knowledge of an advance in one sector can be seen and studied. For such reasons we believed that the institution which the Government decided to build up for the study of technology at the highest level should be within or closely linked to a university.



27A. The request for advice which we received in 1952 included the suggestion that the Government's objective might best be attained by building up the Imperial College of Science and Technology. After full consideration, with the assistance of our Technology Sub-Committee, we concluded that the advantages of large-scale operation claimed for a "technological university", without loss of contact with other fields of study in an isolated institution, could be best obtained by adopting this suggestion, provided that it could be carried into effect without prejudice to the relationship between the College and the University of London. We therefore recommended accordingly.

27B. The acceptance of this recommendation was announced by the Financial Secretary to the Treasury on the 29th January, 1953, but he added that the Government also proposed to make resources available for further developments in other parts of the country. In July, 1953, we were invited, in consultation with the universities and colleges concerned, to work out plans for the development of higher technological education outside London, and we submitted plans, which the Government accepted, for other developments in addition to the expansion of Imperial College. These provided for major developments at Glasgow (at both the University and the Royal College of Science and Technology), Manchester (at both the University and the newly incorporated College of Science and Technology), Leeds and Birmingham, and developments on a fairly large scale at Bristol, Cambridge and Sheffield. More specialised developments were also initiated at other centres, financed in some cases by industry and in others by Treasury grant, notably at Edinburgh, Newcastle, Nottingham, Southampton and Swansea. The recurrent and non-recurrent grants made to finance these developments are dealt with in succeeding sections. The further programme of works for technological development announced by the Lord Privy Seal (the Rt. Hon. R. A. Butler, M.P.) on the 21st June, 1956, belongs to the story of the next quinquennium (1957-62).

### NON-RECURRENT GRANTS

28. Non-recurrent grants are given for the erection of new buildings and the adaptation of old ones, professional fees, equipment for new accommodation and the purchase of properties and sites. During the past four years the total of non-recurrent grants approved has been £23·8m. This figure excludes the capital grants approved for the expansion of Imperial College, since this expansion is being financed outside the Committee's allocation of capital expenditure. The Imperial College project is dealt with in paras. 38-40 below. The following table shows the amounts of non-recurrent grant approved in each year and the purpose for which they were approved:—

TABLE VIII  
*Non-Recurrent Grants Approved*

| Academic Years | Buildings     | Furniture and equipment | Sites and properties | Total         |
|----------------|---------------|-------------------------|----------------------|---------------|
| 1952-53 ... .. | £000<br>3,580 | £000<br>455             | £000<br>404          | £000<br>4,439 |
| 1953-54 ... .. | 4,673         | 389                     | 610                  | 5,672         |
| 1954-55 ... .. | 4,963         | 676                     | 536                  | 6,175         |
| 1955-56 ... .. | 5,756         | 1,134                   | 649                  | 7,539         |
|                | 18,972        | 2,654                   | 2,199                | 23,825        |

29. In the quinquennium 1947-52 the amount of new building work which was approved for that period was about £23m. though the actual amount expended was about £15m. In the four years now under review the amount of new building work approved has totalled about £17½m. The amount actually spent in these four years is about £16½m. Thus the total expenditure on university building for the last 9 years has been about £31½m.

30. This amount, however, has been much less than adequate to meet the needs of the universities. In 1947 they estimated that some £8m. a year would be required over the next 10 years to make good the deficiencies and inadequacies of the pre-war buildings and to provide a reasonable level of accommodation for the expansion which had already taken place in the post-war years whereby the universities had increased their student numbers from 50,002 in 1938-39 to 85,421 in 1949-50. This estimate of their needs was accepted by the Committee and by the Chancellor of the Exchequer of that time. Since 1947 building costs have risen almost continuously and by 1955 were 47 per cent above their 1947 level. If the universities could have built during the last 9 years at the rate required to meet their admitted needs, i.e. £8m. a year at 1947 prices, their building expenditure should have amounted to about £92m. Their actual expenditure as we have shown has been about £31½m. excluding the expansion of Imperial College. The circumstances during these 9 years have been against us; there was the unavoidable restriction on the supplies of raw materials which persisted in the post-war years; there were the financial difficulties accompanying the Korean war and the periodic crises in the balance of payments.

31. The Committee have now concluded their visits to all the universities and university colleges on their grant list and have seen at first hand the extent of the overcrowding and congestion. Laboratories built at the beginning of the century are now out-moded by the great advances in science and technology. Lecture rooms built for the accommodation of large classes make impossible those close contacts between staff and students in seminar or tutorial which we consider so desirable if the full value of a university education is to be obtained. Libraries built for 400 students cannot provide books and reading places for three or four times that number. In most institutions student refectories and Unions are still greatly overcrowded, there are time-wasting lunch queues and often the most meagre provision of facilities for those extra-curricular activities which are an essential part of university education. In some universities laboratories are still housed in huts erected for emergency purposes in the 1914-18 war and scientific research is still carried out in ill-lit basements and cupboards. There has been relatively little development of residential accommodation, the need for which is universally recognised, outside as well as inside universities. It has not been possible in the first four years of this quinquennium to make good these deficiencies and to provide universities with a solid foundation of essential buildings on which they can superimpose the additional facilities which will now be needed to meet the expansion of numbers in the next ten years. It must, however, be added that the more generous provision of capital grants for buildings to be started in 1957 and later years, rising to £12m. in 1958 and again in 1959, will ease this situation; but, if the desirable expansion of universities is to be realised, there will have to be a steady concentration of building effort of much greater volume than has been possible in the years 1952-56.

32. The major building projects over £50,000 approved in the four years 1952-56 are detailed in Appendix V. Of the major projects approved, including Imperial College, 7 per cent is for arts, 62 per cent for science

and technology and 31 per cent for general service buildings such as libraries, student unions, refectories, halls of residence and the like.

33. The financial stringency and limitation of building of the past years has inevitably encouraged in universities the habit of self-help and economy. Universities know well that there are narrow limits to the Committee's resources and that they are much more likely to be able to embark upon a long cherished scheme if they can raise money from other sources and so reduce their claims upon the Committee. In addition they are averse to becoming entirely dependent on funds provided by the State. Further stimulus to self-help was provided by the abandonment of building rationing in 1954. The implications of this were not lost and the universities have increased their efforts to obtain capital contributions from private sources. We have, however, in making our allocations to bear in mind that certain types of buildings such as science or technology laboratories have greater attractive powers than others and that certain universities and colleges have more affluent communities upon which they can draw. During the present quinquennium universities have collected about £3½m. towards the cost of buildings and equipment.

34. In spite of these incentives to economy and self-help, we felt it right to seek independent and expert advice on the control within universities of non-recurrent grants. We accordingly set up a Committee consisting of Sir George Gater, G.C.M.G., K.C.B., D.S.O. (Chairman), Mr. T. W. F. Dalton, C.B., Mr. C. T. Every, C.B.E., F.R.I.C.S., and Sir Lancelot Keay, K.B.E., M.Arch.(Liverpool), F.R.I.B.A.

"To report on the question whether, and if so what, changes are necessary to secure that universities' methods of contracting, and of recording and controlling expenditure from non-recurrent grants, are reasonably designed and properly applied to ensure effective safeguards against waste, extravagance, or other abuse."

This Committee reported in January, 1956, and their report, which was welcomed by the Committee and by the Universities, together with our observations have now been published. It is unnecessary, therefore, to comment in detail in this memorandum.

35. There are, however, some general observations which may be made. Sir George Gater's Committee stated as their first conclusion that they had found no evidence of a lack of appreciation of the need for economy in the expenditure of non-recurrent grants. Where alterations in procedure were necessary, universities are bringing their practices into line with the recommendations made by Sir George Gater's Committee as modified by us. For our part we are developing our procedure on the lines indicated in the Appendix which we contributed to the Committee's report.

36. We have continued to recommend grants for the furnishing and equipping of new accommodation. In these four years grants totalling £2.6m. have been approved for this purpose. During the present quinquennium we have discontinued the practice of making non-recurrent grants for the extension or replacement of equipment in existing accommodation. Universities were invited to make adequate provision for maintenance and renewal of equipment in the estimates of recurrent expenditure on which the recurrent grants for the present quinquennium were based. We do however permit an occasional departure from this rule to meet particular unforeseen needs for very expensive equipment arising from new scientific developments and we have recently recommended grants for the purchase of electronic digital computers for certain universities. Applications for new equipment are each carefully scrutinised by a member of the Committee or an appointed assessor.

37. We have continued to support universities in their policy of buying properties and sites provided these can be shown to be necessary for early use or development. Grants totalling over £2m. have been approved for this purpose. In all these grant-aided purchases the services of the Valuation Office of the Inland Revenue have been at our disposal and negotiations have usually been carried out by the District Valuer on behalf of the university. This procedure works very satisfactorily and we would wish to express our renewed thanks to the Chief Valuer and his staff. In no circumstances have we approved the purchase of a site or property at a price higher than the District Valuer's figures, even if the University offered to provide the difference from private funds.

38. In our report on the period 1947-52 we referred to the Government's decision to make additional resources available for a major expansion of the Imperial College of Science and Technology. Considerable progress has been made over the last four years in planning and beginning the buildings needed to achieve the objective of raising student numbers to 3,000 during the quinquennium 1957-62. The plans for the expansion of the College involve the provision in Bloomsbury of new accommodation for the Warburg Institute which is at present housed in the Collcutt Building and of space for university examinations which has hitherto been used for this purpose in the Collcutt Building and elsewhere on the South Kensington site. Grants totalling over £1m. for building work at South Kensington and £0.5m. at Bloomsbury have so far been approved.

39. Planning was complicated by the objections raised by the Royal Fine Art Commission to the proposed demolition of the whole Collcutt Building including the Tower. To meet these objections the Architects for the College produced a revised plan which allows for the retention of the Tower as a free standing campanile, but it was not found possible to retain the rest of the Collcutt Building without an unacceptable loss of student places and modern facilities. This revised plan has now been accepted in principle, but its final adoption will depend on the results of an examination now being made into the stability and security of the Tower as a free standing campanile.

40. While the expansion of laboratory and teaching facilities will take place, as originally planned, on the South Kensington rectangle site, residential facilities for students will be developed on the Princes Gardens site on the other side of Exhibition Road. The aim of the College is to raise the number of residential places to 500—i.e., one-sixth of the planned total of 3,000 students, by means of this development. We have agreed to recommend grants for the purchase of freeholds in this area as they become available at prices recommended by the District Valuer. A long building lease of most of the area required has already been bought with the aid of a grant.

## INCOME AND EXPENDITURE

*Note.*—The figures of income and expenditure for 1955-56 given in this section are based on provisional figures which have not in all cases been fully audited.

41. The aggregate income of the universities rose from £25.75m. in 1951-52 to £36.89m. in 1955-56 and the aggregate expenditure from £26.13m. to £38.07m. These increases in income and expenditure are to some extent only apparent because universities were asked to show separately in their financial statements for the latter year income from grants for research and income receivable from research contracts. In the past such income and the related expenditure had not in all cases been included in university

accounts, being treated, with the expenditure financed from it, as a self balancing item. In so far as the increases of income and expenditure are due to the inclusion of items previously "netted", they are apparent only. The extent to which the increases are only apparent may be of the order of £1m.

42. The main sources of university income are shown in the following table:—

TABLE IX  
*Main Sources of University Income*

|                                      | 1951-52 |            | 1955-56 |            |
|--------------------------------------|---------|------------|---------|------------|
|                                      | Amount  | Percentage | Amount  | Percentage |
|                                      | £000    |            | £000    |            |
| Parliamentary Grants ... ..          | 17,127  | 66.5       | 26,834  | 72.7       |
| Fees ... ..                          | 3,807   | 14.8       | 3,987   | 10.8       |
| Endowments ... ..                    | 1,348   | 5.2        | 1,390   | 3.8        |
| Grants from Local Authorities ... .. | 1,044   | 4.1        | 1,150   | 3.1        |
| Donations and Subscriptions ... ..   | 485     | 1.9        | 342     | 0.9        |
| Other Income* ... ..                 | 1,937   | 7.5        | 3,191   | 8.7        |
|                                      | £25,748 | 100.0      | £36,894 | 100.0      |

\* "Other income" in 1955-56 includes £1,478,000 from grants for research and £818,000 from income receivable under research contracts.

43. Of the increase in income of nearly £10m. (of which perhaps £1m. is only apparent) nearly £8m. was due to increases in Parliamentary grants. Treasury recurrent grants, which account for the great bulk of the Parliamentary grants, amounted to £16.6m. in 1951-52. For the quinquennium 1952-57 the then Chancellor of the Exchequer undertook to ask Parliament to vote grants rising as follows:—

| <i>Academic Year</i> | <i>Amount</i><br>£m. |
|----------------------|----------------------|
| 1952-53 ... ..       | 20.00                |
| 1953-54 ... ..       | 21.00                |
| 1954-55 ... ..       | 22.25                |
| 1955-56 ... ..       | 23.50                |
| 1956-57 ... ..       | 25.00                |

As has been stated, these amounts took account of estimated needs for providing new furniture and equipment for accommodation already in use, the cost of which had previously been the subject of non-recurrent grants. The amount for the first year made no allowance for new developments, and only part of the increases for later years would have been available for this purpose, even if the price level had not continued to rise. Part of the increases were required to meet rising expenditure to which universities were already committed. For example, most members of academic staffs are paid on incremental scales of salary, and after the large-scale recruitment of staff since the war average salaries were bound to continue to rise automatically, increasing the salary bill without any further increase of numbers. Allowance also had to be made for the increase in recurrent expenditure on the maintenance of premises which would result from bringing into operation new buildings authorised or under construction. The grants did

not make any allowance for increases in rates of salaries, wages or prices after the year 1951-52.

44. In 1954 further funds were put at our disposal to enable us to recommend additional recurrent grants to finance the increases in academic salaries referred to in paragraph 20. These grants amounted to £2m. for 1954-55, £2.4m. for 1955-56 and will amount to approximately £2.5m. for 1956-57. In assessing the additional grants for salary supplementation account was taken only of staff to which universities were committed at the time the increases took effect, except as regards staff appointed as part of the plans for expanding technological education.

45. For the expansion of higher technological education at Imperial College and other centres, additional moneys, amounting to £196,000 for 1954-55, of £404,000 for 1955-56 and of £704,000 for 1956-57, were put at our disposal, but to some extent we were able to finance the expansion from the sums put at our disposal in 1952, which we did not fully distribute at the beginning of the quinquennium.

46. The moneys put at our disposal for recurrent grants have been allocated as follows:—

TABLE X  
*Allocation of Recurrent Grant*

|   | 1952-53 | 1953-54 | 1954-55 | 1955-56 | 1956-57 |
|---|---------|---------|---------|---------|---------|
|   | £000    | £000    | £000    | £000    | £000    |
| For general purposes (including development in science and technology) ... .. | 20,000  | 20,992  | 22,178  | 23,398  | 24,883  |
| For salary supplementation ... ..   | —       | —       | 1,979   | 2,383   | 2,383   |
| For pension supplementation ... ..  | —       | 13      | 32      | 52      | 67      |
| For the further expansion of technological education ... ..                   | —       | 36      | 224     | 410     | 570     |
| For Institutes of Education at Liverpool and Reading ... ..                   | —       | —       | 12      | 22      | 25      |

The allocation of recurrent grant between universities is shown in Appendix IV.

47. The special purpose for which recurrent grants have been made have been explained with the exception of those for Institutes of Education. In our last Report (paragraph 128) we said that all but three universities had elected to take responsibility for the Institutes of Education set up to organise the training of teachers in their areas. In the three other cases the Institutes were administered by joint boards financed by the Ministry of Education. Two of the three universities (Liverpool and Reading) which did not at first accept responsibility for the Institutes of Education for their areas have now done so, and additional recurrent grants shown in Table X have been made on our recommendation to enable them to meet the cost.

48. The earmarked grants for certain fields of study which were made in the quinquennium 1947-52 have been merged in the grants made for general purposes. In our last report we explained (paragraphs 96-98) the reasons which led us to the conclusion that this should be done. While there may be no way in which a development necessary in the national interest can be achieved so rapidly and effectively as by an earmarked grant, we do not think that it is in the best interests of a subject of study that developments in it should enjoy the protection of an earmarked grant for any prolonged period, since such an arrangement must militate against the sense of

responsibility which each university governing body should feel for fostering every subject of study undertaken by its university, and without which no subject can be regarded as satisfactorily established.

49. The other head of university income which calls for comment is fees. The amount received from this source has remained relatively stable because there has been no general change in the rates of fee in force during the period under review. In general the universities would be glad to develop any source of income which would tend to reduce their growing dependence on Treasury grants, but they have hesitated to vary rates of fee when the greater part of their fee income is derived from public funds, and the remainder comes in many cases from families which can only provide university education for their children at the cost of considerable sacrifices. With the continued fall in the value of money, however, the maintenance of existing rates of fee became increasingly difficult to defend, and in 1954 it was intimated to the universities that the matter might well receive consideration. Proposals aiming at a greater uniformity of fees as between institutions and at producing additional revenue of between £500,000 and £600,000 have been framed by the Committee of Vice-Chancellors and Principals and adopted by the universities. They will come into effect in the year 1957-58.

50. The main heads of expenditure are shown in the following table:—

TABLE XI  
*University Expenditure*

|  | 1951-52       |            | 1955-56       |            | Percentage Increase |
|--|---------------|------------|---------------|------------|---------------------|
|  | Amount        | Percentage | Amount        | Percentage |                     |
| 1. Administration ... ..   | £000<br>2,309 | 8·8        | £000<br>2,630 | 6·9        | 13·9                |
| 2. Salaries and superannuation of teaching staff ... ..  | 12,543        | 48·0       | 17,226        | 45·3       | 37·3                |
| 3. Departmental Wages (Technicians and Laboratory Assistants) ... ..                               | 2,371         | 9·1        | 4,238         | 11·1       | 78·7                |
| 4. Departmental and Laboratory maintenance (including libraries, museums and observatories) ... .. | 3,183         | 12·2       | 4,849         | 12·7       | 52·3                |
| 5. Repairs and Maintenance of Buildings ... ..   | 1,423         | 5·4        | 2,260         | 5·9        | 58·8                |
| 6. Rates, Insurance, Heat, Light, Water, Porters' Wages, etc.                                      | 1,558         | 6·0        | 2,435         | 6·4        | 56·3                |
| 7. Other expenditure ... ..  | 2,745         | 10·5       | 4,432         | 11·7       | 61·5                |
|  | £26,132       |            | £38,070       |            | 45·7                |

51. The comparison between the expenditure in these two years is affected by three factors:—

- (a) the change in the arrangements for accounting for research;
- (b) the discontinuance of non-recurrent grants for furniture and equipment for existing accommodation;
- (c) the fall in the value of money.

52. The first of these factors has already been dealt with in paragraph 41. It has the same effect on expenditure as on income, and £1m. should therefore be deducted from expenditure in 1954-55 (or any later year) in comparing it with expenditure in any year before 1954-55.

53. As regards the second factor, we decided in 1950 that in the quinquennium 1952-57 we would confine our recommendations of non-recurrent grants for furniture and equipment to that needed for new accommodation. We did this on account of the difficulty which we found in dealing with applications for furniture and equipment for existing accommodation. Universities were therefore warned that their estimates for the quinquennium 1952-57 should include provision to meet such expenditure from general income. Account was taken of this change of practice in arriving at the total of recurrent grant for the quinquennium 1952-57. To make allowance for this factor, approximately £750,000 should be added to the expenditure of 1951-52 in comparing it with the expenditure of any later year.

54. The rise in prices and wages has, however, been much the most important of the factors mentioned. The total expenditure in 1951-52, with the addition of the £750,000 referred to in the last paragraph, was £26.88m. It is estimated that the goods and services which this expenditure represented would cost about £6m. more at the prices and wage and salary rates now ruling. This figure includes £2.2m. in respect of the salary increases to meet which universities received the grants for salary supplementation referred to in paragraph 46. It also includes nearly £2m. in respect of wage and salary increases not covered by those grants.

55. Since the total of recurrent grant for the present quinquennium settled in 1952 (paragraph 43) made no allowance for any increases in rates of salaries, wages and prices after the year 1951-52, and the only additional grants since made available to meet such increases were those in respect of the salaries of academic staffs (paragraph 44) it is inevitable that less development has been possible than was intended when the amounts of recurrent grant for the quinquennium were fixed. Nor is it surprising that as the end of the quinquennium approaches some universities have been unable to limit their annual expenditure to the amount of their income. Indeed it is remarkable that the situation is as good as it is. Fully audited figures for 1955-56 are not yet available for all universities, but it is known that in that year aggregate university expenditure, including £214,000 allocated to reserve, exceeded aggregate income by £326,000, which is under 1 per cent of the income for the year. Though in 1956-57 the situation will probably be less favourable, it seems to us that the way in which the universities have met the economic strains of the past five years should strengthen public confidence in their financial administration.

On behalf of the Committee.

KEITH A. H. MURRAY,  
*Chairman.*

E. HALE,  
*Secretary.*

*December, 1956.*



# APPENDIX I

## STUDENT NUMBERS

| University or College      | Academic Years |        |        |         |        |        |         |        |        |        | Autumn Term |        |        |        |        |
|----------------------------|----------------|--------|--------|---------|--------|--------|---------|--------|--------|--------|-------------|--------|--------|--------|--------|
|                            | 1938-39        |        |        | 1951-52 |        |        | 1955-56 |        |        | 1955   |             |        | 1956   |        |        |
|                            | Men            | Women  | Total  | Men     | Women  | Total  | Men     | Women  | Total  | Men    | Women       | Total  | Men    | Women  | Total  |
| Birmingham                 | 1,013          | 420    | 1,433  | 2,495   | 642    | 3,138  | 2,463   | 741    | 3,204  | 2,496  | 741         | 3,237  | 2,653  | 775    | 3,428  |
| Bristol                    | 5,675          | 320    | 6,000  | 1,775   | 796    | 2,569  | 1,873   | 894    | 2,767  | 1,875  | 894         | 2,770  | 1,969  | 902    | 2,871  |
| Cambridge                  | 5,422          | 509    | 5,931  | 1,775   | 716    | 2,491  | 1,387   | 741    | 2,128  | 1,314  | 735         | 2,049  | 1,539  | 736    | 2,275  |
| Durham                     | 1,281          | 388    | 1,700  | 3,452   | 861    | 4,313  | 3,102   | 868    | 3,970  | 3,085  | 870         | 3,955  | 3,365  | 935    | 4,300  |
| Exeter                     | 1,288          | 134    | 1,422  | 577     | 361    | 938    | 3,530   | 464    | 3,994  | 532    | 465         | 997    | 581    | 470    | 1,051  |
| Hull                       | 126            | 162    | 288    | 577     | 271    | 850    | 606     | 252    | 858    | 601    | 251         | 852    | 743    | 315    | 1,058  |
| Leeds                      | 1,361          | 396    | 1,757  | 2,516   | 704    | 3,220  | 2,666   | 885    | 3,551  | 2,630  | 869         | 3,499  | 2,886  | 907    | 3,793  |
| Liverpool                  | 1,505          | 19     | 1,524  | 2,462   | 263    | 2,725  | 2,428   | 296    | 2,724  | 2,420  | 278         | 2,698  | 2,459  | 352    | 2,811  |
| London                     | 9,705          | 480    | 10,185 | 13,340  | 630    | 13,970 | 13,486  | 771    | 14,257 | 13,351 | 762         | 14,113 | 13,743 | 790    | 14,533 |
| Manchester                 | 1,569          | 3,486  | 5,055  | 3,082   | 4,972  | 8,054  | 2,924   | 1,104  | 4,028  | 2,936  | 1,115       | 4,051  | 3,149  | 1,164  | 4,313  |
| Manchester C.S.I.*         | 351            | 3      | 354    | 652     | 14     | 666    | 795     | 9      | 804    | 764    | 9           | 773    | 928    | 12     | 940    |
| North Staffordshire        | —              | —      | —      | 201     | 99     | 300    | 348     | 300    | 648    | 350    | 230         | 580    | 370    | 241    | 611    |
| Nottingham                 | 467            | 115    | 582    | 1,459   | 596    | 2,055  | 1,548   | 682    | 2,230  | 1,552  | 678         | 2,230  | 1,655  | 690    | 2,345  |
| Oxford                     | 4,147          | 876    | 5,023  | 6,005   | 1,088  | 7,093  | 6,207   | 1,339  | 7,546  | 6,173  | 1,332       | 7,505  | 6,594  | 1,446  | 8,040  |
| Reading                    | 294            | 290    | 584    | 1,476   | 400    | 1,876  | 1,148   | 518    | 1,666  | 680    | 418         | 1,209  | 717    | 566    | 1,283  |
| Sheffield                  | 619            | 148    | 767    | 1,648   | 400    | 2,048  | 1,677   | 420    | 2,097  | 1,659  | 418         | 2,077  | 1,786  | 494    | 2,280  |
| Southampton                | 196            | 72     | 268    | 1,688   | 280    | 1,968  | 801     | 432    | 1,233  | 798    | 431         | 1,229  | 840    | 461    | 1,301  |
| TOTAL, ENGLAND             | 29,192         | 8,241  | 37,433 | 49,275  | 14,309 | 63,584 | 49,790  | 15,989 | 65,779 | 49,488 | 15,896      | 65,384 | 52,351 | 16,636 | 68,987 |
| TOTAL, WALES               | 2,041          | 738    | 2,779  | 3,546   | 1,317  | 4,863  | 3,258   | 1,368  | 4,626  | 3,238  | 1,347       | 4,585  | 3,516  | 1,489  | 5,005  |
| Aberdeen                   | 809            | 402    | 1,211  | 1,377   | 515    | 1,892  | 1,197   | 509    | 1,706  | 1,191  | 507         | 1,698  | 1,183  | 520    | 1,703  |
| Edinburgh                  | 2,358          | 847    | 3,205  | 3,561   | 1,402  | 4,963  | 3,258   | 1,476  | 4,734  | 3,066  | 1,407       | 4,473  | 3,068  | 1,494  | 4,562  |
| Glasgow                    | 3,096          | 1,079  | 4,175  | 3,993   | 1,206  | 5,199  | 3,779   | 1,236  | 5,015  | 3,483  | 1,142       | 4,625  | 3,615  | 1,246  | 4,861  |
| Glasgow R.C.S.I.†          | 484            | 31     | 515    | 1,048   | 87     | 1,135  | 1,378   | 107    | 1,485  | 1,267  | 107         | 1,374  | 1,360  | 109    | 1,469  |
| St. Andrews                | 577            | 351    | 928    | 1,170   | 652    | 1,822  | 1,210   | 746    | 1,956  | 1,196  | 743         | 1,939  | 1,348  | 766    | 2,114  |
| TOTAL, SCOTLAND            | 7,324          | 2,710  | 10,034 | 11,149  | 3,862  | 15,011 | 10,715  | 4,074  | 14,789 | 10,203 | 3,906       | 14,109 | 10,574 | 4,135  | 14,709 |
| GRAND TOTAL, Great Britain | 38,557         | 11,689 | 50,246 | 63,970  | 19,488 | 83,458 | 63,763  | 21,431 | 85,194 | 62,929 | 21,149      | 84,078 | 66,441 | 22,560 | 88,701 |

\* Manchester College of Science and Technology.  
† Glasgow Royal College of Science and Technology.

## APPENDIX II

### NUMBER OF GRADUATING AND FIRST DIPLOMA FULL-TIME STUDENTS ENTERING FOR THE FIRST TIME IN THE FIRST TERMS OF THE SESSIONS

| University<br>or College          | October<br>1952 | October<br>1953 | October<br>1954 | October<br>1955 | October<br>1956 |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Birmingham ... ..                 | 817             | 785             | 872             | 898             | 964             |
| Bristol ... ..                    | 704             | 719             | 719             | 807             | 804             |
| Cambridge ... ..                  | 2,285           | 2,354           | 2,499           | 2,432           | 2,543           |
| Durham University ... ..          | —               | —               | —               | —               | —               |
| Durham Colleges ... ..            | 323             | 296             | 303             | 372             | 431             |
| Durham King's College ... ..      | 835             | 692             | 683             | 764             | 915             |
| Exeter ... ..                     | 352             | 286             | 285             | 359             | 364             |
| Hull ... ..                       | 221             | 184             | 248             | 353             | 397             |
| Leeds ... ..                      | 838             | 926             | 991             | 973             | 1,169           |
| Leicester ... ..                  | 179             | 195             | 185             | 260             | 270             |
| Liverpool ... ..                  | 652             | 715             | 673             | 811             | 840             |
| London ... ..                     | 4,263           | 4,426           | 4,453           | 4,664           | 4,722           |
| Manchester ... ..                 | 999             | 956             | 1,100           | 1,155           | 1,238           |
| Manchester C.S.T. ... ..          | 178             | 173             | 255             | 244             | 341             |
| North Staffordshire ... ..        | 140             | 107             | 172             | 189             | 182             |
| Nottingham ... ..                 | 694             | 685             | 690             | 769             | 720             |
| Oxford ... ..                     | 2,095           | 2,241           | 2,079           | 2,126           | 2,279           |
| Reading ... ..                    | 328             | 318             | 286             | 343             | 366             |
| Sheffield ... ..                  | 482             | 471             | 534             | 546             | 711             |
| Southampton ... ..                | 296             | 355             | 376             | 438             | 424             |
| <b>Total, England ... ..</b>      | <b>16,681</b>   | <b>16,884</b>   | <b>17,403</b>   | <b>18,503</b>   | <b>19,680</b>   |
| <b>Wales:</b>                     |                 |                 |                 |                 |                 |
| Aberystwyth ... ..                | 329             | 310             | 323             | 351             | 427             |
| Bangor ... ..                     | 215             | 219             | 228             | 236             | 264             |
| Cardiff ... ..                    | 413             | 391             | 442             | 475             | 514             |
| Swansea ... ..                    | 231             | 225             | 236             | 298             | 363             |
| W.N.S.M.* ... ..                  | 98              | 63              | 94              | 65              | 56              |
| <b>Total, Wales ... ..</b>        | <b>1,286</b>    | <b>1,208</b>    | <b>1,323</b>    | <b>1,425</b>    | <b>1,624</b>    |
| <b>Aberdeen ... ..</b>            | <b>409</b>      | <b>420</b>      | <b>398</b>      | <b>434</b>      | <b>405</b>      |
| <b>Edinburgh ... ..</b>           | <b>920</b>      | <b>998</b>      | <b>1,093</b>    | <b>1,165</b>    | <b>1,184</b>    |
| <b>Glasgow ... ..</b>             | <b>1,074</b>    | <b>1,023</b>    | <b>1,087</b>    | <b>1,117</b>    | <b>1,188</b>    |
| <b>Glasgow R.C.S.T. ... ..</b>    | <b>355</b>      | <b>359</b>      | <b>366</b>      | <b>430</b>      | <b>427</b>      |
| <b>St. Andrews ... ..</b>         | <b>356</b>      | <b>343</b>      | <b>438</b>      | <b>523</b>      | <b>605</b>      |
| <b>Total, Scotland ... ..</b>     | <b>3,114</b>    | <b>3,143</b>    | <b>3,382</b>    | <b>3,669</b>    | <b>3,809</b>    |
| <b>GRAND TOTAL, Great Britain</b> | <b>21,081</b>   | <b>21,235</b>   | <b>22,108</b>   | <b>23,597</b>   | <b>25,113</b>   |

\* Welsh National School of Medicine.

## APPENDIX III

### HALLS OF RESIDENCE SUB-COMMITTEE

Professor W. R. Niblett, B.LITT. (*Chairman*)  
 A. L. C. Bullock, Esq.  
 Professor D. G. Christopherson  
 Sir Eric James, D.PHIL.  
 Professor N. F. Mott, M.A., D.SC., F.R.S.  
 Lady Ogilvie  
 Lawrence H. A. Pilkington, Esq.  
 Mrs. M. D. Stocks, LL.D., B.SC.  
 Miss D. Dymond, C.B.E. (*Secretary*)

## APPENDIX IV

### ALLOCATION OF RECURRENT GRANT PROVISION FOR QUINQUENNIAL 1952-57

| University or College                 | Academic Years    |                   |                   |                   |                   |
|---------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                       | 1952-53           | 1953-54           | 1954-55           | 1955-56           | 1956-57           |
|                                       | £                 | £                 | £                 | £                 | £                 |
| Birmingham ...                        | 810,000           | 853,400           | 1,020,277         | 1,104,000         | 1,236,300         |
| Bristol ...                           | 660,000           | 693,980           | 788,517           | 841,720           | 891,880           |
| Cambridge... ..                       | 1,325,000         | 1,401,100         | 1,659,067         | 1,785,500         | 1,948,800         |
| Durham University ...                 | 890,000           | 932,966           | 1,084,047         | 1,158,500         | 1,227,460         |
| Exeter ...                            | 173,000           | 181,000           | 215,500           | 235,660           | 248,760           |
| Hull ...                              | 185,000           | 194,000           | 232,000           | 249,700           | 263,340           |
| Leeds ...                             | 815,000           | 858,100           | 1,027,573         | 1,120,100         | 1,185,900         |
| Leicester ...                         | 140,000           | 147,000           | 178,617           | 191,720           | 202,640           |
| Liverpool ...                         | 785,000           | 825,500           | 949,523           | 1,017,990         | 1,080,140         |
| London ...                            | 6,280,000         | 6,573,492         | 7,454,033         | 7,984,100         | 8,480,800         |
| Manchester ...                        | 1,000,000         | 1,054,740         | 1,216,580         | 1,309,440         | 1,400,040         |
| Manchester C.S.T. ...                 | 74,000            | 76,500            | 188,727           | 240,460           | 183,660           |
| North Staffordshire ...               | 115,000           | 127,000           | 153,250           | 170,240           | 183,540           |
| Nottingham ...                        | 405,000           | 426,440           | 494,923           | 531,940           | 565,320           |
| Oxford ...                            | 1,215,000         | 1,267,960         | 1,489,853         | 1,586,740         | 1,668,020         |
| Reading ...                           | 286,000           | 299,680           | 346,983           | 379,320           | 399,540           |
| Sheffield ...                         | 505,000           | 540,800           | 672,217           | 715,460           | 765,280           |
| Southampton ...                       | 210,000           | 221,280           | 262,167           | 281,180           | 296,200           |
| <b>TOTAL, ENGLAND ...</b>             | <b>15,873,000</b> | <b>16,674,938</b> | <b>19,433,854</b> | <b>20,903,770</b> | <b>22,227,620</b> |
| <b>TOTAL, WALES ...</b>               | <b>953,000</b>    | <b>998,500</b>    | <b>1,164,827</b>  | <b>1,248,360</b>  | <b>1,323,360</b>  |
| Aberdeen ...                          | 485,000           | 500,000           | 567,117           | 598,300           | 624,200           |
| Edinburgh ...                         | 1,000,000         | 1,052,300         | 1,213,533         | 1,294,700         | 1,375,100         |
| Glasgow ...                           | 1,000,000         | 1,052,860         | 1,208,990         | 1,304,950         | 1,386,500         |
| Glasgow R.C.S.T. ...                  | 169,000           | 187,060           | 233,873           | 272,496           | 291,960           |
| St. Andrews ...                       | 520,000           | 536,260           | 603,090           | 642,900           | 670,300           |
| <b>TOTAL, SCOTLAND ...</b>            | <b>3,174,000</b>  | <b>3,328,480</b>  | <b>3,826,603</b>  | <b>4,113,346</b>  | <b>4,348,060</b>  |
| <b>GRAND TOTAL,<br/>Great Britain</b> | <b>20,000,000</b> | <b>21,001,918</b> | <b>24,425,284</b> | <b>26,265,476</b> | <b>27,899,040</b> |

## APPENDIX V

### MAJOR PROJECTS APPROVED FOR STARTS DURING THE YEARS 1952-56

|  |  |
|--|--|
| Birmingham                                 | Mechanical and Electrical Engineering building (Stage III)<br>Chemical Engineering building<br>Chemistry building extensions<br>Physics building extension<br>Library      |
| Bristol                                    | Engineering School (Stage III)<br>Heating Scheme   |
| Cambridge                                  | Chemical Laboratories (Stages II and III)<br>Chemical Engineering building<br>Veterinary Anatomy building<br>Fluid Mechanics building                                      |
| Durham, King's College                     | Arts building<br>Civil Engineering building<br>Chemistry building  |
| Exeter                                     | Arts building  |
| Hull                                       | Men's Hall of Residence  |
| Leeds                                      | Man-made Fibres building<br>Fuel Technology building<br>Chemistry and Physics building<br>Union building   |
| Leicester                                  |  |
| Liverpool                                  | Chemistry Laboratories (Stage II)<br>Medical School (Stage II)   |
| London                                     | University Students' Union<br>Accommodation for examinations (to replace space vacated at South Kensington for the Imperial College Expansion Scheme)<br>Warburg Institute |
| Imperial College                           | Aeronautics and Chemical Engineering building<br>Royal School of Mines: new storey<br>Union building: Extension<br>Mechanical and Electrical Engineering workshops         |
| Queen Mary College                         | Engineering building (Stages I and II)<br>Conversion of People's Palace for use of the College   |
| Royal Veterinary College                   | New field station (Stage I)  |
| School of Pharmacy                         | Completion of new building in Brunswick Square   |
| University College                         | Biological Sciences building (Stages I and II)<br>Adaptation of Seamen's Hospital  |
| Guy's Hospital Medical School              | Adaptation of buildings in Nag's Head Yard (Stage I)   |
| St. Bartholomew's Hospital Medical College | Science building (Stage III)   |
| St. Mary's Hospital Medical School         | Hall of Residence (Sussex Gardens) (Stage I)   |
| Bristol Postgraduate Medical Federation    | Cyclotron building: completion   |

|  |   |
|--|---|
| Manchester University                        | Library<br>Union building   |
| Manchester College of Science and Technology | Chemical Engineering building   |
| North Staffordshire                          | Science Laboratories (Stage II)   |
| Nottingham                                   | Union building  |
| Oxford                                       | Inorganic Chemistry building<br>Department of Human Anatomy building                      |
| Reading                                      | Arts building   |
| Sheffield                                    | Library<br>Mining and Engineering Departments: Extension<br>Chemistry building: Extension |
| Southampton                                  | Library<br>Engineering building   |
| Wales  |   |
| Bangor University College                    | Refectory and kitchen   |
| Cardiff University College                   | Men's Hall of Residence (Birchwood Grange)<br>Biology Building (Stage I)                  |
| Swansea University College                   | Natural Sciences building<br>Men's Hall of Residence (Clyne Castle)                       |
| Aberdeen                                     | Library: extension  |
| Edinburgh                                    | Medical School: extension<br>Staff House<br>Men's Hall of Residence                       |
| Glasgow                                      | Engineering building<br>Arts building   |
| St. Andrews                                  | Library: extension  |